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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/615,565	07/13/2000	Alireza Farid Faryar	10-5-10	4501

7590 06/30/2004  
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EXAMINER

WU, JINGGE

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/615,565

Applicant(s)

FARYAR ET AL.

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,3,6-11 and 16-22 is/are rejected.
- 7) ☐ Claim(s) 2, 4-5, 12,14-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

1. Applicants' response to the last Office Action, filed April 8, 2004 has been entered and made of record.

***Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6-11, 16-22 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5604494 to Murakami et al, hereafter Murakami in view of US Shimizu et al. , hereafter Shimizu (both are references of record)

As to claim 1, Murakami discloses a method for use in a block transform-based decoder, receiving a signal generated by a block transform based encoder, the signal representing one or more quantized coefficients and the decoder decoding the signal to yield a decoded visual data block (fig. 3), comprising:

transforming the decoded visual data block to yield a transformed data block (figs. 2-3, element 111, col. 3 lines 40-65);

applying a constrained quantization and inverse quantization (fig. 2-4, col. 3 line 40-col. 4 line 24, note that the quantizations are constrained to the different bit planes) to the transformed block.

Murakami does not explicitly mention that the constrained quantization being conditioned on a comparison of the signal received by the decoder to the transformed data block, the constrained quantization and inverse quantization yielding a partially decoded output signal.

Shimizu, in an analogous environment, discloses the constrained quantization being conditioned on a comparison of the signal received by the decoder to the transformed data block, (fig. 2 and 4, col. 4 line 28-col. 7 line 8, note that  $Tf-Goh$  in equation 6 is the comparison) the constrained quantization and inverse quantization yielding a partially decoded output signal (fig. 2 and 4, col.4 line 28-col. 7 line 8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the scheme of Shimizu in the method of Murakami in order to reduce the artifacts of the image by reducing the rounding errors or reaching the target codes ( Murakami, col. 2-3, Shimizu, col.1)

As to claims 11 and 21, claims 11 and 21 are the corresponding apparatus claims to claim 1. The discussion are addressed with regard to claim 1.

As to claims 6 and 16, Murakami further discloses inverse transforming the partially output signal to yield a decoded output signal (fig. 2-3, element 113).

As to claims 7-8 and 17-18, Murakami further discloses clipping the decoded output signal to a predetermined number of bits (fig. 4, col. 4 lines 3-14), and repeating the steps of transforming, applying, inverse transforming and clipping steps (fig. 2 and 3, col. 3 lines 38-61).

As to claim 22, the discussions are addressed with claims 1, and 6-8.

As to claims 7-8, and 17-18, Shimizu further discloses repeating the steps transforming, applying, inverse transforming but does not mention clipping the bits.

Murakami further discloses clipping the decoded output signal to a predetermined number of bits (fig. 4, col. 4 lines 3-14), and repeating the step of clipping steps (fig. 2 and 3, col. 3 lines 38-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the scheme Shimizu of in the method of Murakami in order to reduce the artifacts of the image ( Murakami, col. 2-3)

As to claims 9-10 and 19-20, the combination of Shimizu and Murakami does not explicitly mention an invertible block transform like Hadamard transform.

Examiner takes Official Notice that this feature is notoriously well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the scheme of Hadamard transform in the method of Shimizu and Murakami in order to obtain accurate output image via lossless transform such as Hadamard.

#### ***Allowable Subject Matter***

**4.** Claims 2, 4-5 and 12, 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Contact Information**

5. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

